

REMARKS

Reconsideration and allowance of this application, as amended, is respectfully requested.

This Amendment is in response to the Office Action dated August 18, 2004.

By the present Amendment, independent claims 1, 12 and 23 have each been amended for purposes of further clarifying the invention (with corresponding amendments being made to the dependent claims, where appropriate, to ensure proper antecedent basis). Also, new independent claim 31 has been added to define the invention in system terms. In particular, each of the independent claims has been amended to clarify the overall relationship between a first full header packet of a stream of packets from the source apparatus, and the operation of the present invention with regard to this first full header packet to initiate compression of packets of the stream of packets which are subsequent to the first full header packet. As will be discussed in greater detail below, it is respectfully submitted that the operations performed on the first full header packet patentably distinguish over the arrangements provided in the references to Takagi (USP 6272148) and Degermark.

Referring to Fig. 4 (solely for purposes of example), an arrangement of the method of the invention is shown which illustrates this relationship between operations on the first full header packet of the stream of packets to initiate compression of the subsequent packets. As shown in Fig. 4, the first full packet from a source apparatus (e.g., the host 1) is modified so that the first full header packet contains a second node address. As also shown in Fig. 4, a routing header is inserted in the first full header packet. This modification and the insertion of the routing header in the first full header packet serves to initiate header compression of

the IP headers of the packets of the stream of packets subsequent to the first full header packet, as shown by the lower arrow between router 1 and router 2 in Fig. 4.

By the present Amendment, this relationship between the operations of modifying the first full header packet and inserting a routing header into the first full header packet in order to initiate the compression of the IP headers of the subsequent packets is very clearly defined. Taking claim 1 as an example, the claim defines from the outset that the method pertains to initiating compression of an internet protocol (IP) header of packets of a stream of packets sent from a source apparatus, utilizing a first and a second node. As set forth in the amended claim 1, the first step for this method of initiating compression is:

“modifying, at said first node, the IP header of a first full header packet of the stream of packets from the source apparatus so that a destination address field of the IP header of the first full header packet contains a second node address.”

Following this, the step of inserting, at the first node, a routing header in the first full header packet is defined (with specific details concerning the routing header also being claimed with regard to its containing CID information and a destination address). The final step of claim 1 defines the initiating of header compression (at the first node) of the IP headers of the packets of the stream of packets subsequent to the first full header packet.

Referring to the primary reference to Takagi, although it may initially appear to be related to the present invention, a close inspection of this document leads to the clear conclusion that it fails to teach or suggest the above-noted claimed features. Specifically, rather than modifying the IP header of the first full header packet, Takagi teaches an arrangement for adding a new IP header instead. For example,

column 25, lines 30-38 and column 26, lines 1-10 of Takagi describe the use of a tunneling technique. These portions of Takagi are relied on in the Office Action as teaching the claimed step of modifying the IP header of the full header packet. In fact, however, it is well known in the art that tunneling techniques involve adding a new IP header, not modifying the original IP header. This is documented, for example, in RFC 1853 which states that in tunneling techniques “an outer IP header is added before the original IP header.” As such, the addition of a new IP header is completely different than the claimed feature of modifying the original first full header packet as part of the operation for initiating compression of subsequent packets.

In addition to the above-noted difference, the Office Action recognizes that Takagi fails to disclose the further step, defined, for example, in each of the independent claims, of inserting or modifying a routing header in the first full header packet of the stream of packets, particularly with the information defined for the routing header in the claims. The Office Action goes on to cite Degermark as a basis for modifying Takagi to make such a modification. However, it is respectfully submitted that nothing in either Takagi or Degermark provides the necessary motivation for such a modification.

As noted in MPEP 2143.01:

“Obviousness can only be established by combining or modifying the teaching of the prior art to produce the claimed invention where there is some teaching, suggestion or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art.”

In the present instance, there is absolutely nothing in either Takagi or Degermark which would suggest the specific modification of Takagi to include the specifically claimed router heading at the first node (let alone the claimed modification of the IP

header of the first full packet, as also defined in the claims). The sole suggestion of this modification, in fact, comes from the Applicants' own teachings, which are, of course, inappropriate for use in a proposed rejection.

With regard to the question of relying on knowledge generally available to one of "ordinary skill in the art", MPEP 2144.03 goes on to state that reliance on such "official notice" is appropriate only in very rare circumstances. Indeed, MPEP 2144.03 states:

"Official notice unsupported by documentary evidence should only be taken by the Examiner where the facts asserted to be well known, or to be common knowledge in the art are capable of instant and unquestionable demonstration of being well known."

It is respectfully submitted that this is clearly not the case in the present instance.

In further regard to this, the CAFC has clearly states in the case of In re Lee, 61 USPQ 2d 1430 that:

"This factual question of motivation is material to patentability, and could not be resolved on subject belief and unknown authority. It is improper, in determining whether a person of ordinary skill in the art would have been lead to this combination of references, simply to "use that which the inventor taught against its teacher."" 61 USP2 2d at 1434.

As such, it is respectfully submitted that proposed modification of Takagi by the teachings of Degermark fails to meet the requirements for motivation set forth in both the MPEP and in the case of In re Lee. Therefore, reconsideration and removal of the rejection of claims 1-30 based on Takagi and Degermark is earnestly solicited.

In addition to be above-noted distinctions regarding the present claims over the cited prior art, it is noted that the Office Action makes reference, on page 3, to column 13, lines 15-16 and column 23, lines 8-17 of Takagi concerning the claim step for initiating compression of the subsequent packets. These portions of Takagi

mention header compression in both PPP and SLIP. It is well known (e.g., RFC 1962) that such compression mechanisms rely on link level signaling (i.e., signaling below the IP layer) in order to establish the context in which the compression will take place. As such, these portions of the Takagi reference highlight the distinctions between the operations in Takagi and the present claimed invention. By virtue of the specific claimed steps of modifying the IP header of the first full header packet and inserting or modifying a routing header therein, the present invention does not require the existence of the session/context between the compressor and the decompressor which is necessary for link level signaling such as used in Takagi. Instead, the present claimed mechanism can rely on the IP layer functionality to accomplish the establishment of the context in which the compression is performed. Accordingly, it is respectfully submitted that these portions of Takagi (i.e., column 13, lines 15-16 and column 23, lines 8-17) serve as further evidence of the distinctions (and advantages) of the present claimed invention.

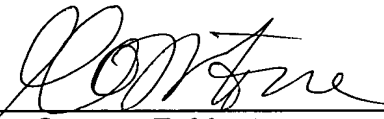
As a final comment with regard to the secondary reference Degermark, it is noted that this does not describe a mechanism of using a routing header to convey context. Instead, the Degermark reference relies on the very packet inspection which the present invention was designed to avoid. Shortcomings of systems such as taught by Degermark are discussed, for example, in the background of the invention on pages 5 and 6 of the application. As such, it is respectfully submitted, that, rather than motivating the modification of Takagi to arrive at the present claimed invention, Degermark teaches directly away from such a modification. Therefore, reconsideration and removal of the rejections based on the combination of Takagi and Degermark is requested for this reason as well.

In view of the foregoing amendments and remarks, Applicant submits that claims 1-30 are now in condition for allowance. Accordingly, early allowance of such claims is respectfully requested.

To the extent necessary, Applicant petitions for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (Docket No. 0172.37246X00).

Respectfully submitted,

ANTONELLI, TERRY, STOUT & KRAUS, LLP

By 
Gregory E. Montone
Reg. No. 28,141

GEM/dlt

1300 North Seventeenth Street, Suite 1800
Arlington, Virginia 22209
Telephone: (703) 312-6600
Facsimile: (703) 312-6666